Thom Seider Fire Management Unit

The Thom Seider FMU is 148, 960 acres. The majority of lands within the FMU are in Late Successional Reserve (LSR) management area. This FMU is entirely within Federal DPA. A small portion (593 acres) of the FMU is part of the Rogue River Siskiyou National Forest in Oregon.

The WUI communities at risk occur primarily along the Klamath River from Happy Camp to Hamburg; as well as the lower portion of Seiad Valley. There are very few residences are located in the upslope portions of the FMU.

Wildland Urban Interface	Acres	Percent of FMU
Community At Risk	2,817	2%
Defense Zone	27,588	19%
Threat Zone	55,655	37%

3.2.2 Guidance

Management Area specific guidance applicable to this FMU is listed below.

Management Area	Acres	Percent of FMU
Back Country	9,457	6%
General Forest	5,528	4%
No Data	30	0%
Private (may include BLM)	6,839	5%
Partial Retention	17,442	12%
Recreational River	2,658	2%
Retention	5,665	4%
Riparian Reserves	10,905	7%
LSR	82,744	56%
TES Species Habitat	2,616	2%
RNA/SIA/CUA	5	0%
Wilderness	4,478	3%

Wilderness
The Marble Mountain Wilderness is located in the southern tip of the FMU.

Description
Wilderness areas are mostly pristine landscapes, managed as vestiges of a wild America. Wilderness resources provide specific values such as solitude, physical and mental challenges, and opportunities for scientific study and primitive recreation.

Management Goals
Manage for wilderness characteristics, natural conditions, and ecological processes within each wilderness.

Provide recreationists a primitive and semi-primitive, non-motorized recreation opportunity.

Manage for high air quality.

Utilize forage resources consistent with the 1964 Wilderness Act, as amended.

Desired Future Condition

Each wilderness looks natural, with human disturbances substantially unnoticeable. Ecological processes, including fire, have shaped the vegetative patterns and condition. Some evidence of human influence consistent with the Wilderness Act may be present due to valid mining claims, livestock grazing, and recreational use.

Standards and Guidelines

MA2-1 To better emphasize wilderness values, manage each wilderness as an integrated resource with inseparable ecosystem parts.

MA2-2 Minimize the use of motorized equipment and mechanical transport of materials and personnel within wilderness. Carefully analyze the need for motorized equipment and obtain prior documented approval. Schedule such work to avoid disturbance to the public.

MA2-3 Wilderness values shall predominate if resource conflicts are identified.

MA2-7 Naturally occurring ecological processes should predominate within wilderness ecosystems.

MA2-16 Manage smoke from prescribed natural fires (PNF) as a component of the wilderness. Manage prescribed natural fires and prescribed burns (ignited by humans) to reduce future smoke emissions. Coordinate with the proper State and local agencies to meet air quality regulations (see Forest-wide Standards and Guidelines for Air Quality, Fire Management).

MA2-55 All lightning-started fires will be PNF; unless the fire does not meet the goals and objectives (it then will be declared a wildfire). Permit lightning-caused fires to play their ecological role, as nearly as possible, within the wilderness.

MA2-56 Each PNF will have a PNF Burn Plan prepared within 48 hours of discovery. Review the Burn Plan daily to assure validity based on current and projected conditions.

MA2-57 Coordinate fire management actions with forests that share management of the wildernesses.

MA2-58 A Wilderness Fire Coordinator (WFC) may be established to gather and send out information and aid to the National Forests and Region. The WFC will set priorities for on-going fires within the wilderness areas. The WFC should be at least Nationally qualified as a Prescribed Fire Manager. As a minimum, the WFC should have 1 Fire Information Officer and a Wilderness Resource Advisor.

MA2-59 Consider all person-caused wildland fires (not management lighted prescribed fires) as wildland fires and use the appropriate suppression response.

MA2-60 Reduce to an acceptable level the risks and consequences of a wildland fire within or escaping from the wilderness. Assessments of consequences will emphasize

potential impacts on residential intermixes, mixed or adjacent landowners, Endangered or Threatened species, etc.

MA2-61 Permit planned ignitions or management-lighted prescribed fire. This will allow fire to return in a more natural role so managers can select meteorological and fuel situations for future prescribed natural fire. Wilderness fire policy permits the use of management-lighted fires.

MA2-62 Suppression of wildland fire will use appropriate suppression response and the Minimum Impact Suppression Techniques as outlined in the Forest-wide Fire and Fuels Management Standards and Guidelines.

MA2-63 Fire prevention will be an important practice within wilderness. Fire prevention activities, such as signing, will concentrate on entrance portals to not diminish the visitor's wilderness experience. Visitor contacts within the wilderness will occur when there is a threat to wilderness preservation or resource protection.

MA2-64 Develop a PNF implementation schedule. For all the resources, develop the decision flow charts and prescription parameters that meet the resource standards and guidelines.

Emergency use of motorized equipment and mechanical transport within the wilderness must be consistent with the delegated authority and approval process outlined by the Forest Supervisor in the letter dated June 2, 2009 (2320/5130). It is also expected that a Wilderness Resource Advisor (WRA) will be assigned to every wilderness fire.

When emergency use of motorized equipment is granted, the authorization must be documented using the **Emergency Wilderness Mechanized Transport/Motorized Equipment Use Authorization** form.

BAER is only allowed in wilderness if (1) necessary to prevent an unnatural loss of the wilderness resource or (2) to protect life, property, and other resource values outside of wilderness. Normally use hand tools and equipment to install selected land and channel treatments (FSM 2323.43b)

TES Species Habitat

The TES Species habitat consists of two peregrine falcon management areas and a bald eagle manage area. The peregrine falcons are located in the vicinity of Cade Mountain and Lower Devils. The bald eagle site is near Seiad Valley.

Description

Each of the T&E species requires different habitat. When the habitat of these species overlap, the management priority shall be placed on the species with the most specialized habitat needs (that is, the rarest occurring habitat).

Management Goals

Provide habitat conditions and management activities that contribute to the recovery of Federally listed T&E species and to Sensitive species found on the Forest. Emphasize the recovery of each species, by managing for quality habitat, consistent with ecological processes.

Provide for more than the minimum number of bald eagle and peregrine falcon pairs established by the Recovery Plans and disaggregated to the Forest.

Late Successional Reserves

Late-Successional Reserves are designed to provide for the viability needs of all late-successional species in an ecosystem approach. Meet the habitat requirements as outlined in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* signed April 13, 1994 and the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* dated February 1994 (FSEIS).

Description

LSRs have been designated based on 5 elements: (1) areas mapped as part of an interacting reserve system; (2) Late-successional/Old Growth 1 and 2 areas within Marbled Murrelet Zone 1 and certain owl additions, mapped by the Scientific Panel on Late-Successional Forest Ecosystems (1991); (3) sites occupied by marbled murrelets; (4) known owl activity centers; and (5) Protection Buffers for specific endemic species identified by the Scientific Analysis Team (1993). Additional areas may be included as species are identified as provided for in the survey and management standards and guidelines.

Management Goals

The objective of LSRs is to protect and enhance conditions of late-successional and “old growth” forest ecosystems, which serve as habitat for late-successional and "old growth"-related species including the northern spotted owl. These reserves are designed to maintain a functional, interacting, late-successional and "old growth" forest ecosystem.

Desired Future Condition

The characteristics of individual areas vary according to the dominant vegetative species, site class, topography and other site factors. Well-dispersed and continuous areas of multi-layered forests with high quality habitat characteristics and attributes are common: (1) under optimum conditions on north slopes, (2) at high elevations, and (3) in cool, moist areas. The overstory trees are large diameter, tall and have obvious signs of decadence. Some are broken-topped, have mistletoe, or have platforms of branches capable of holding organic materials that serve as a nest. Snags are common and fallen trees visible on the ground, providing for adequate prey populations. Within true fir habitats or where hardwoods occur, mid-seral stage forested areas provide suitable habitat as well. Although overstory trees are smaller and stands are less dense, important structural elements, such as snags and nesting platforms, are present. South slopes and drier areas are more open due to frequent natural fires.

Exceptions

RNAs and activities required by recovery plans for listed T&E species take precedence over LSR standards and guidelines.

Management Assessment for Late-Successional Reserves

Management assessments have been completed for LSRs and 100-acre LSRs throughout the Forest. These LSR assessments include: (1) a history and inventory of overall vegetative conditions within the reserve, (2) a list of identified late-successional associated species known to exist within the LSR and information on their locations, (3) a history and description of current land uses within the reserve, (4) a fire management plan, (5) criteria for developing appropriate treatments, (6) identification of specific areas that could be treated under those criteria, (7) a proposed implementation schedule tiered to higher order (for example, larger scale) plans, and (8) proposed monitoring and evaluation components to help evaluate if future activities are carried out as intended and achieve desired results. The Regional Ecosystem Office (REO) has reviewed these LSR assessments. Activities that have been reviewed by the REO have been prioritized for each LSR. LSRs have also been prioritized by activity needs. Refer to the Forest-wide LSR assessment, Taylor, Dillon, Crapo/Little North Fork, and Goosenest LSR assessments. Also, refer to Appendix K, LSR Fire Management Plan, located at the end of this document.

Standards and Guidelines

MA5-35 Each LSR will be included in fire management planning as part of watershed analysis. Fire suppression in LSRs will utilize minimum impact suppression methods in accordance with guidelines for reducing risks of large-scale disturbances. Plans for wildfire suppression will emphasize maintaining late-successional habitat. During actual fire suppression activities, fire managers will consult with resource specialists (for example, botanists, fisheries and wildlife biologists, hydrologists) familiar with the area, these standards and guidelines and their objectives, to assure that habitat damage is minimized. Until a fire management plan is completed for LSRs, suppress wildfire to avoid loss of habitat in order to maintain future management options.

MA5-36 In LSRs, a specific fire management plan will be prepared prior to any habitat manipulation activities. This plan, prepared during watershed analysis or as an element of province-level planning or a LSR assessment, should specify how hazard reduction and other prescribed fire applications will meet the objectives of the LSR. Until the plan is approved, proposed activities will be subject to review by REO. REO may develop additional guidelines that would exempt some activities from review. In all LSRs, watershed analysis will provide information to determine the amount of CWD to be retained when applying prescribed fire.

MA5-37 In LSRs, the goal of wildfire suppression is to limit the size of all fires. When watershed analysis, province-level planning, or a LSR assessment is completed, some natural fires may be allowed to burn under prescribed conditions. Rapidly extinguishing smoldering CWD and duff should be considered to preserve these ecosystem elements.

MA5-38 Utilize an aggressive prescribed fire program to maintain long-term habitat quality and ecological processes within LSRs once LSR assessments and National Environmental Protection Act (NEPA) analysis are completed and site-specific decisions are made. Specific fire prescriptions shall be used until PNF can be effectively used. The use of PNF is outlined in the Wilderness Fire Management S&Gs. Those S&Gs also shall apply to LSRs.

MA5-39 Report wildfires within activity centers to the appropriate District and/or Forest biologist. The biologist shall determine the need to contact the USFWS. Report fires that escape initial attack to the USFWS. Motorized and heavy equipment may be permitted by the Incident Commander to assure habitat protection.

MA5-40 Wildfire prevention should be critical to habitat maintenance. During critical fire danger periods, increased prevention efforts should be undertaken, especially in high use recreation areas within LSRs and in areas adjacent to populated areas.

Bald Eagle

Description

The areas designated to be managed for bald eagles include known nest areas and winter roost sites. On the Westside of the Forest, these areas occur next to and along major rivers and in later seral stages of open mixed conifer stands. Nests may occur in large emergent pines in younger seral stage stands. In the Klamath and California Cascades, bald eagles appear to be highly selective for large ponderosa pine trees. Foraging habitat consists of large trees and snags within 150 yards of aquatic habitats.

Management Goals

Provide bald eagle habitat that will contribute to the recovery of the Pacific bald eagle. Management activities that are consistent with the USFWS's approved Recovery Plan are expected to accomplish this goal.

Manage eagle habitat on the Forest to protect and maintain nesting and roosting sites.

Provide bald eagle wintering habitat over as wide an area as possible to provide for a dispersal of wintering concentrations of eagles.

Desired Future Condition

Westside winter roost and nest areas: These areas consist of open, late-seral, mixed conifer forests. Large snags and live conifers with open crowns and stout lateral limbs for perching are common in nesting and roosting sites. Perch trees provide good views of adjacent river corridors.

Standard and Guidelines

MA5-58 Report wildfires within primary protection areas to the District and/or Forest biologist. The biologist shall be responsible for contacting the USFWS, if appropriate.

MA5-59 The appropriate suppression response and minimum impact suppression techniques should be used.

MA5-60 Use prescribed fire to maintain or improve bald eagle habitat.

Peregrine Falcon

Description

Areas to be managed for peregrine falcon include nest sites and protective zones around nest sites. These nest sites occur on cliffs, generally near riparian habitats. A Peregrine Falcon Recovery Plan was approved in August 1982.

Management Goals

Provide habitat that will contribute to the recovery of the Pacific peregrine falcon. Management activities consistent with the USFWS's approved Recovery Plan are expected to accomplish this goal.

Manage peregrine habitat on the Forest to protect and maintain nesting and foraging sites.

Desired Future Condition

Peregrine falcons are nesting on tall cliffs across the Forest. Adjacent habitat areas, especially riparian areas, provide the nesting birds with an adequate supply of prey species. Human disturbance during the breeding season is infrequent.

Standard and Guidelines

MA5-76 Report wildfires within the primary protection areas to the appropriate District and/or Forest biologist. The biologist shall be responsible for contacting the USFWS, if appropriate.

MA5-77 Implement the appropriate suppression response and minimum impact suppression techniques.

MA5-78 Design fire prescriptions to maintain or improve peregrine falcon habitat and restore ecological processes.

Special Interest Areas

There are two SIAs in this FMU. The Seiad Baker Cypress SIA is located in the west fork of Seiad Creek (the 5 acres is a sliver that occurs outside of the LSR). The Cook & Green Pass SIA is in the LSR at Cook & Green Pass.

Description

Special Interest Areas (SIAs) are sites designated for recreational experiences where education and interpretation of unique or special natural resource values are emphasized. Highlighted are botanical and geologic features to increase Forest visitor appreciation of resource values and natural diversity within the Forest.

Management Goals

Manage for ecological processes and the unique features for which the area was designated.

Promote public use, education, interpretation and enjoyment of the special interest values of the area when such activities do not harm the values for which the area was designated.

Desired Future Condition

The vegetative, geologic and other natural features are enhanced to emphasize the unique resource for which the area was designated. Few signs of management activities are present, other than to provide public access and accommodations. Minor vegetative clearing is evident to allow

Standards and Guidelines

MA7-20 Manage prescribed natural fire, prescribed fire, and biomass utilization to maintain the ecological processes within the SIA. Protect all facilities and developments.

Backcountry

Description

These areas support forest, brush, rock outcrops and meadows with a wide range of soil types, topography and elevations. Much of the area was burned in the 1987 fires and shows a varying response to those fires. The Kangaroo area is next to an established wilderness. These areas were examined during the RARE II process for potential wilderness designation and were released for multiple use management by the California Wilderness Act of 1984.

Management Goals

Provide a high quality semi-primitive non-motorized recreational setting.

Develop primitive recreational facilities to emphasize the semi-primitive non-motorized recreational setting.

Desired Future Condition

Within these areas, there are infrequent contacts between Forest visitors. A developed trail system provides convenient access to the area within limits imposed by the terrain. Occasionally there are camping areas or other recreational opportunities, but they are primitive developments. Old roads are apparent in some locations but have vegetation growing on the roadbeds as though they had not been used in some time. Human activities do not dominate the landscape.

Signs of vegetative manipulations are infrequent. The vegetation shows signs of past burns, recovered to a variety of levels. A mixture of seral stages provides habitat for a host of wildlife species. Some forested areas are just sprouting and other vegetation appears very old.

Standards and Guidelines

MA9-11 Fire shall play an important role in the management of the backcountry recreation area. Wildland fires that are not within the desired prescription shall receive the appropriate fire suppression response (see Forest-wide standards and guidelines). Prescribed fire shall be aggressively used to promote ecological processes.

MA9-12 All lightning-started fires will be PNF unless declared wildfires. Permit lightning-caused fires to play, as near as possible, their ecological role.

MA9-12a Each PNF will have a PNF Burn Plan prepared within 48 hours of discovery. Review the Burn Plan needs daily to assure validity based on current and projected conditions.

MA9-13 A PNF Coordinator should be assigned to gather and send out information and aid the National Forests and Region in establishing the status of new starts. The PNF Coordinator also should set priorities for on-going fires. The PNF Coordinator should be at least a Nationally qualified Prescribed Fire Manager. As a minimum, the PNF should have 1 Fire Information Officer and a Backcountry Resource Advisor.

MA9-14 Consider all person-caused fires (not management-lighted prescribed fires) as wildland fires and use the appropriate suppression response.

MA9-15 Reduce to an acceptable level the risks and consequences of a wildland fire within backcountry areas. Assessments of consequences should emphasize potential impacts on residential intermixes, mixed or adjacent landowners, Endangered or Threatened species, etc.

MA9-16 Planned ignitions or management lighted prescribed fire is permitted. This will allow fire to return in a more natural role so managers can select meteorological and fuel situations for future PNF.

MA9-17 Suppression of wildland fire should use appropriate suppression response and the Minimum Impact Suppression Techniques as outlined in the Forest-wide Fire Management Standards and Guidelines.

MA9-18 Fire prevention shall be an important practice within backcountry areas. Fire prevention activities, such as signing, should concentrate on entrance portals so as to not diminish the visitor's backcountry experience. Visitor contacts within the backcountry shall occur when there is a threat to backcountry preservation or resource protection.

MA9-19 Develop a PNF implementation schedule. For all the resources, develop the decision flow charts and prescription parameters that meet the resource standards and guidelines.

Retention VQO

Description

These areas are scattered throughout the Forest. They typically are found: (1) in the foreground of high visual sensitivity roads, trails, etc., (2) in the foreground or middle ground of areas with Variety Class A scenery or (3) areas seen from local communities (USDA Agriculture Handbook #462, National Forest Landscape Management, Vol. 2, Chapter 1). These roads and trails typically receive high levels of public use, or access recreation sites or areas with visually pleasing scenery.

Management Goals

Provide a level of attractive, forested scenery by maintaining the areas in a natural or natural-appearing condition. Manage human activities so they are subordinate to the characteristic landscape. Also, manage human activities so they are not evident to the casual Forest visitor.

Manage for a programmed, sustained harvest of wood products in areas that are capable, available, and suitable for timber management.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage.

Desired Future Condition

The signs of management activities are not apparent. Views from visually important roads and trails appear forested and provide a natural or natural-appearing forest.

Vegetative or ground-disturbing management activities that have been implemented repeat form, line, color, and texture that represent characteristics of the landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc. are not evident to the average Forest visitor.

Standards and Guidelines

MA11-14 Use prescribed fire to reduce natural fuel buildups, to treat post-harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA11-15 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

Recreational River

The fisheries are the Outstandingly Remarkable Values of the recreational segments of the Klamath River.

Description

This prescription applies to those Recreational River segments of either designated components of the National WSRs System or rivers being recommended for possible inclusion in the National System.

The Recreational classification applies to those rivers or sections of rivers that: (1) are free-flowing, (2) are readily accessible by road or railroad, (3) may have some development along the shorelines and (4) may have undergone some impoundment or diversion in the past.

For a complete listing, in the Forest Plan, refer to Table 4-25, Acres Allocated to Designated and Recommended Recreational Rivers (page 4-155).

Management Goals

Preserve the Recreational Rivers in a free-flowing condition. Protect the rivers and their immediate environments for the benefit and enjoyment of present and future generations.

Protect and enhance the outstandingly remarkable value(s) for which the river(s) are or would be designated, while providing for public recreation and resource uses that do not adversely impact or degrade those values.

Desired Future Condition

The waterway remains generally natural and riverine in appearance. The physical and biological integrity of the aquatic system is maintained. Habitat for anadromous and resident fish species is in good condition, capable of supporting viable populations of indigenous species. The river area may be developed for the full range of agricultural and forestry practices show

evidence of past and ongoing timber harvest or include some residential, commercial, or similar development.

Standards and Guidelines

MA13-17 Fire management strategies should normally follow those of the surrounding area. Recognize and incorporate the Recreational river values into the fire suppression tactics. Prescribed fire may be used within the management area to maintain the ecological functions, if it maintains the outstandingly remarkable values for which the river was designated.

Partial Retention VQO

Description

This prescription applies to those areas identified with a Partial Retention VQO. It encompasses 188,500 acres. These areas typically are either in the foreground of moderate visual sensitivity roads, trails, etc., or the middleground of high sensitivity roads.

Scattered throughout the Forest, these areas are primarily in the middle distances (1/2 to 3 miles) from selected roads and trails.

Management Goal

Provide an attractive, forested landscape where management activities remain visually subordinate to the character of the landscape. Manage human activities so they are subordinate to the character of the landscape.

Maintain stand health as well as resilience to wildland fire, insect, disease, and other damage.

Desired Future Condition

Areas managed to meet a Partial Retention VQO may show evidence of management activities but are visually subordinate to the characteristic landscape in form, line, color, or texture of landscape elements. Views from visually important roads and trails appear forested and provide a nearly natural looking landscape.

Lands capable of growing coniferous vegetation are forested.

Standards and Guidelines

MA15-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA15-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

General Forest

Description

Scattered throughout the Forest, these areas make up about 11% (262,000 acres) of the Forest land base. They are lands that are capable, available, and suitable to be managed for a host of resource conditions, including structural component and commercial outputs. They currently support a variety of vegetation including shrubs, hardwood species, and various tree species in

varying sizes and densities. They are areas where timber outputs, consistent with Forest-wide management goals, are of a high priority.

Management Goals

Provide a programmed, non-declining flow of timber products, sustainable through time. These levels may vary from year to year, based on ecological processes. Maintain conifer stocking levels and high growth rates commensurate with the capability of the site to produce wood fiber. Intensively manage young regenerated stands to maximize growth potential.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage. Emphasize salvage and restoration from catastrophic events. Reforest capable, but currently non-stocked, lands.

Emulate ecological processes and stand and landscape patterns where possible. Within harvest units, maintain appropriate structure, composition, and ecological functioning of the area.

Provide for snags and hardwood habitat to help maintain viable populations of wildlife species that require these structural components.

Meet the VQOs. Achieve less modified visual conditions when possible.

Develop a transportation system to transport Forest commodities efficiently to available markets.

Where possible, adjust planting levels to reduce pre-commercial thinning and fuel hazard costs in the future.

Desired Future Condition

The mosaic of healthy forest stands is comprised of a variety of vegetative species. The composition of individual stands varies considerably depending on forest type and seral stage development. Although openings with hardwoods, shrubs, grasses, and forbs are apparent, forest stands consist primarily of conifers. In some areas, the conifer component of the vegetation is sparse (due to vegetative manipulations or natural conditions). All areas maintain some structural components of older stands. Some areas support mature forest stands. The oldest stands are between 80 and 120 years old. Generally, this portion of the forest has younger trees than the surrounding areas. Stand sizes vary with topography and the landscape pattern of surrounding areas.

Regeneration openings have clumps of green trees on at least 15% of the area. Existing seed tree and shelterwood stands retain their residual trees (3 to 12 trees/acre) for structural diversity.

Stocking control maintains healthy, vigorously growing stands.

Reforestation, timber harvesting, and stand tending activities are commonplace. A network of roads provides access throughout these areas.

Habitat for species, which use early and mid-seral stages, is abundant.

Standards and Guidelines

MA17-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA17-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

3.2.3 FMU Characteristics

Thom-Seider FMU extends from the headwaters of Thompson Creek drainage on the northern most point to the headwaters of Grider Creek drainage on the southern most point. The Klamath River bisects the FMU.

The communities of Happy Camp, Seiad Valley and Hamburg are within this FMU. There are several numerous scattered residences along the river corridor between Happy Camp on the western border to Hamburg on the east. In Seiad Valley there are numerous residences located along Seiad Creek. Throughout the FMU most private property is located along the bottom of the drainages. There is a residence located north of the Klamath River (T46N; R11W; S26) approximately 5 miles at the end of Ladd road. Although this residence is located along the river bottom, there is single ingress/egress for that property owner. A single residence (T46N; R11W; S4) is in a mid slope position above Seiad Creek. There are three structures located in the upper slopes in China Creek (T46N: R12W; S29).

3.2.3.1 Safety

AVIATION HAZARDS: There multiple hazards along the Klamath River where phone and power lines and a cable cart cross the river. These occur across the entire stretch of the FMU. There are also power line hazards located on Seiad, Walker and Thompson Creeks.

In addition to numerous lines across the river there is a microwave tower in Hamburg Gulch, as well as Lookout Towers and communication equipment on Lake Mountain and Slater Butte. A detailed list of aviation hazards can be found on the SDE server in the Klamath Library under Fire Management.

ROADS: Access roads to this water shed are, Thompson Ridge road (19N01) Seiad Creek Road 46N33 and 46N66/46N64 Walker and Grider Creek roads.

Much of this FMU has limited road access.

3.2.3.2 Physical

The Siskiyou Mountains forms the northern most border, with Thompson Ridge forming the western boundary and Johnny O'Neil Ridge forming the eastern boundary where the FMU is north of the Klamath River. South of the Klamath River, the FMU boundaries are not as clearly defined by. Just west of the community of Hamburg, the eastern boundary extends from the Klamath River to Tom Martin Peak and follows the ridge system between the Grider and Scott

River drainage. The western boundary south of the Klamath River is defined by the ridge that separates the Grider and Elk Creek drainages.

A small portion of the FMU is north of the Oregon state line in the upper most reaches of Thompson Creek. A small portion of the FMU in the southern end is administered by the Salmon-Scott River Ranger District.

This FMU is heavily dissected with numerous small drainages. Thompson and West Seiad Creek are the largest watersheds north of the Klamath River. Grider and Walker Creek are the largest south of the river.

Much of this FMU is not accessible by vehicles. Road access is primarily limited to the lower reaches of Thompson Creek, and the western portion of West Seiad Creek north of the Klamath River. South of the river, road access is confined primarily to the China Creek and Walker Creek drainages.

This FMU has a relatively even distribution of area within each of the defined slope classes. The gentler slopes (<30%) tend to occur along the Klamath River.

Slope Class	Acres	Percent of Area
<30%	26,824	18%
30-45%	37,350	25%
45-60%	46,120	31%
60-90%	38,018	26%
>90%	756	1%

The elevation ranges from roughly 1000 feet to just over 7000 feet at Tom Martin Peak. Elevation ranges are classified consistent with the major ecological zones in the Klamath Mountain Bioregon (Sugihara et al 2006). Generally the area <2000 feet occurs along the Klamath River. Most of the FMU is between 2000 and 4200 feet. The drainages south of the Klamath River have the greatest majority of area above 4200 feet.

Elevation Zone	Acres	Percent of Area
Lower Montane (<2000 ft)	22,703	15%
Mid–Upper Montane (2000-420 ft)	86,971	58%
Upper Montane to Subalpine (4250-6000 ft)	35,205	24%
Subalpine(>6000 ft)	4,191	3%

Inversions generally set in at around the 4200 foot level. When this occurs smoke will settle into the drainages below 4200, impacting both availability of aviation resources and local air quality in the surrounding communities.

3.2.3.3 Biological

Vegetation is grouped by Wildlife Habitat Relationship (WHR) Vegetation Type. Conifers are the dominant life form within the FMU. More than half of the FMU is occupied by large, closed canopy, conifer dominated stands. More open conifer dominated stands (<40% canopy closure) occupy less than 5% of the FMU. Hardwood dominated stands include pure hardwood stands and stands with a minor conifer component.

WHR Life Form	Acres	Percent of Area
Non-vegetated & Herbaceous	3,313	2%
Shrub Vegetation Types	16,010	11%
Hardwood Dominated	25,277	17%
Small Conifers (<11" dbh)	18,753	13%
Large Conifers (>11" dbh)	82,188	57%

The Douglas-fir vegetation type is the dominant WHR type found in the FMU. This WHR type occurs in all elevations zones, but is most common in the lower montane and mid-upper montane zones. This WHR type also tends to dominate in the western half of the FMU, transitioning to a Sierra Mixed Conifer WHR type in the eastern half of the FMU.

White fir WHR type dominates the mid-upper montane zone, particularly in the north facing drainages on the southern portion of the FMU. Red fir dominates the highest elevation zone on the southern portion.

On the northern boundary, with south facing slopes, the white fir type tends to be most frequent at the highest elevation zone. Although the red fir type occurs, it is a minor component on these hotter slopes. Montane chaparral is the dominant shrub WHR type and is concentrated on the upper reaches of these south facing slopes.

Hardwood dominated stands are found throughout the FMU, primarily in the lower montane and mid-upper montane elevation zones.

Plantations make up roughly 8% of this FMU. The majority of older plantations are a result of the 1964 Indian Ridge fire located in the lower portion of Thompson Creek.

Plantation Age	Acres	Percent of Area
>40 Years	5116	3%
20 – 40 Years	6082	4%
<20 Years	2189	1%

The 1000 acre Seiad Baker Cypress botanical SIA is located in the west fork of Seiad Creek. Baker Cypress is a species that can benefit from low intensity fire. The Seiad LSR encompasses all but five acres of this SIA.

The 200 acre Cook & Green Pass SIA is a botanical and geologic SIA designated for its diversity of crest zone sensitive species and peridotite rock outcrops. This SIA is within the Johnny O'Neil LSR.

The 100 acre Lake Mountain Foxtail Pine SIA is located on the southern boundary of this FMU in the vicinity of Lake Mountain Lookout.

Anadromous Fisheries

There are four anadromous species, as well as resident trout species in this FMU. The entire stretch of the Klamath River is habitat for all fish species. Thompson; Seiad; Grider and Walker Creek also provide habitat for fall Chinook and Coho salmon. Winter steelhead can be found in those creeks as well as short stretches of Fort Goff; Portuguese; Canyon; China and West Grider Creek. Other than the Klamath River only Grider Creek supports populations of summer steelhead.

Fish Species	Species Status	Miles of Habitat
Coho Salmon	ESA listed as Threatened	67.6
Fall Chinook	FS designated Sensitive	52.6
Spring Chinook	FS designated Sensitive	0
Summer Steelhead	FS designated Sensitive	45.6
Winter Steelhead	FS designated Sensitive	80.4
Resident Trout	Unlisted	82.1

Here is where we should include reference to established drafting sites and appropriate language for minimizing impacts to anadromous fish species (i.e., use of fish screens)

Wildlife

There are two peregrine falcon management areas in the vicinity of Cade Mountain and Lower Devils. There is a Bald Eagle management area near Seiad Valley. If fires occur within the primary protection area, contact the appropriate district of Forest wildlife biologist.

Aircraft operations in close proximity could constitute a disturbance. Consideration should be given to minimize potential for disturbance without compromising safety and wildfire management objectives.

The majority of area within this FMU is designated as LSR. Most of the Seiad LSR is within this FMU and a portion of the Johnny O'Neil LSR is on the western boundary.

3.2.3.4 Resources

HISTORIC SITES: historic hunting sites, and old mining sites up Thompson creek drainage.

STRUCTURES: There are about 15 to 17 Structures and a power transfer station at the bottom of drainage by HWY 96 at Thompson Creek. The Seiad Valley community is clustered in the lower half of Seiad and Grider Creek.

The Seiad Fire Safe Council (FSC) has seven 5,000 gallon water tanks and a dry fire hydrant spread throughout their coverage area. Most of these tanks are filled by water trucks except the one in Hamburg which is filled by Jim Creek. The following table shows latitude and longitude for these tanks and hydrant. They are going to put in another tanker fill in the near future up Seiad Creek near Seiad Oaks road.

The Seiad FSC has also prepared a draft Community Wildfire Protection Plan. Points of contact for the FSC are:

- Glenn Briggs, President 496-3343
- Ed Prather 496-3663
- George Jennings, NCRC 468-2888

Water Tank/Hydrant location	Latitude and longitude
Thompson Creek Water Tank - near Hwy 96 and Thompson Creek	N 41 51'43" W 123 18'34"
Seiad VFD Station Water Tank - In Seiad Valley near Hwy 96 & fire hall	N 41 50'28" W 123 11'39"
Seiad Creek #1 Water Tank - In Seiad Valley on Seiad Creek road	N 41 51'31" W 123 09'46"
Seiad Creek #2 Water Tank - In Seiad Valley on Seiad Creek road	N 41 51'59" W 123 08'26"
Seiad Oaks Water Tank - In Seiad Valley on Seiad Oaks road	N 41 50'53" W 123 11'16"
Grider creek - In Seiad Valley on Grider Creek road	N 41 49'55" W 123 10'46"
Hamburg Water Tank - In Hamburg along Hwy 96 near Jim Creek	N 41 46'50" W 123 04'16"
Dry Water Hydrant - In Seiad Valley on Old Seiad Creek road	N 41 50'35" W 123 11'18"

Slater Butte Lookout and Lake Mountain Lookout are on the boundaries of this large watershed. Additional infrastructure located as Slater Butte includes communications facilities for Forest Service as well as local and county emergency services and commercial cell phone towers. There is also a microwave reflector in Hamburg Gulch.

In addition to the Seiad Work Center located on Hwy 96 at Seiad Valley, there are several Forest Service sites with improvements and/or concentrated use by the public. The following sites are listed on the SDE Server under Klamath Library.

Campgrounds	Trailheads	River Access	Protection Points
Sarah Totten	Huckleberry Mountain	Rocky Point	Four bridges along the Grider Creek Trail.
O'Neill	Grider Creek	Portuguese Creek	
Fort Goff	Tyler Meadows	Sluice Box	Latitude & Longitude are in the Protection Point layer located on server under Fire Management
Grider Creek	Seiad (PCT)	Seattle Creek	
	Cook & Green	China Point	
	Cold Springs (PCT)	Gordon's Ferry	

3.2.4 FMU Fire Environment

A total of 1265 fires have occurred over the period of record (1911 – 2009). The majority of fires have been caused by lightning (67%). Roughly 52% of the FMU has not burned during the period of record. Most fires are suppressed at less than 10 acres. A total of 84 fires have a mapped perimeter (7% of all ignitions). These fires burned a total of 86,747 acres, with 15,837

acres having at least two fires occurring over the period of record. The average fire size is 1033 acres. The largest fire (Ft. Goff/Copper) occurred in 1987. This fire was contained at 30,975 acres and burned 19,341 acres within this FMU.

There are few natural barriers within this FMU. For a large portion of the FMU, due to the lack of natural barriers and limited road access, fires that are not suppressed in the initial stages could become large and long duration events.

There are old dozer lines still in place from 1964 Indian Ridge fire and 1987 Slater fire. They have been recently used for prescribed burning in 2002-6.

3.2.4.1 Fire Behavior

This FMU is dominated by timbered fuel types. Timber litter models (184-189) make up the majority of the fuel type in this FMU. These are moderate to high load timber litter models with higher rates of spread and flame length for this fuel group.

Shrub fuel models constitute the next highest percent of area. Fuel model 145 makes up almost half of the area within this group. This fuel model has a fuel depth of 4-6 feet, with a very high rate of spread and flame length and high moisture of extinction. This fuel model represents both shrub dominated vegetation types as well as young conifer stands. The shrub fuel models dominate the upper reaches West Seiad, Portuguese and Fort Goff Creeks.

Much of the area on the east slopes of Thompson Ridge within the perimeter of the 1964 Indian Ridge fire is characterized as a shrub fuel, although it is primarily made up of older plantations. There was no yarding of unutilizable material (YUM) required during the salvage operation. As a result are concentrations of large diameter material within the plantations from cull logs that were left on site. After more than forty years, this material is readily available to burn with large diameter fuel moistures are low.

Fuel Model Group	Average Size	Largest Polygon	Total Acres	Percent of Area
Unburnable	2.6	98	1,635	1%
Grass	3.8	196	2,092	1%
Grass/Shrub	2.3	88	1,951	1%
Shrub	6.3	1,507	38,829	26%
Timber Litter low ROS/FL	4.1	795	4,168	3%
Timber litter high ROS/FL	8.7	2,706	55,770	38%
Timber US low ROS/FL	14.8	2,105	20,978	14%
Timber US high ROS/FL	9.5	565	20,769	14%
Slash/Blowdown	7.5	980	980	1%

3.24.2 Weather

This FMU is in Fire Weather Zone CAZ280 and NFDRS Zone 200. There is a small portion in NFRDS Zone 204 in the southwest corner of the FMU. These zones are combined for the

purposes of reporting NFDRS predicted indices. This FMU is in the Northwest Mountains Predictive Service Area (NC04)

Inversions generally set in at around the 4200 foot level. When this occurs smoke will settle into the drainages below 4200, impacting both availability of aviation resources and local air quality in the surrounding communities.

The lower slopes are strongly influenced by diurnal winds, particularly late afternoon up canyon winds along the Klamath River corridor. The influence of diurnal wind patterns is also noticeable in Thompson and Seiad Creek drainages, but to a lesser degree.

Slater Butte is the closest RAWS location. It is a ridge top RAWS adjacent to the Slater Butt Lookout at an elevation of 4670 feet. This RAWS is strongly influenced by east winds that are channeled and accelerated down the Klamath River canyon. The RAWS sits on top of the inversion and East winds hit this RAWS site strongly (reference John Snook ONCC RAWS remarks 2008).